

An Industry of Enthusiasts:
Users Make the Computer Personal, 1975-1981



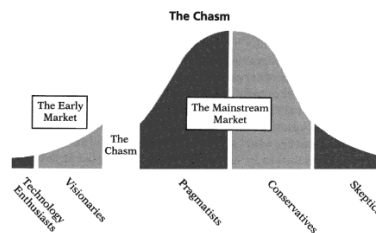
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University of Wisconsin-Milwaukee
BHC, Minneapolis, May 2005

1: Users vs. Customers

No Users in Business History?

- Business History has Customers
 - Usually off screen
- Technology Management literature has Adopters of Innovations
 - Some are early, some aren't

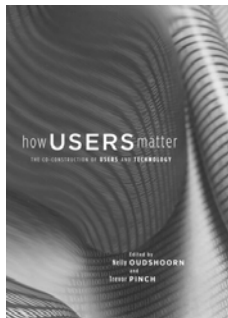
Crossing the Chasm



Geoffrey A. Moore, 1991, Harper Business

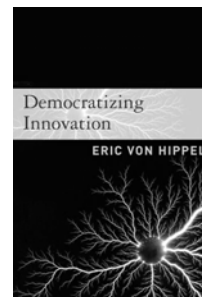
User Concept in History of Technology

- Implies a more active role
 - Use is after all the point of a technology
 - Social meanings come from use
 - Technology reshaped by users (literally and metaphorically)
- Long tradition in the history of technology
 - Susan Douglas, Ruth Schwartz Cowan, etc.



Being Too Harsh?

- Some exceptions in business literature
 - Von Hippel
 - Building on idea of "Lead Users"
 - Influenced by open source software model
 - JoAnne Yates
 - Computer users in life insurance industry



2: The Computer Gets Personal

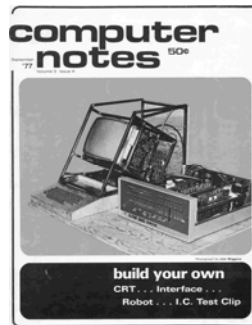
Theme of Paper

- Rapid creation of personal computer industry
 - Before uses are apparent
- Not just hardware
 - End users are deeply involved in broader industry
 - Line between use and production blurred
 - Users supply applications
- Redefinition of what a computer is



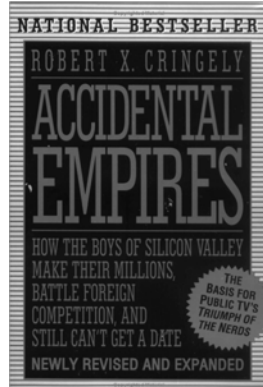
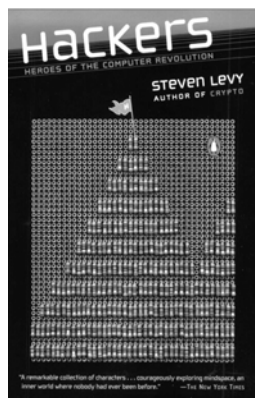
The First Microcomputers

- MITS Altair
 - Launched 1975
 - Supplied in kit form
- Limited use
 - But expandable...



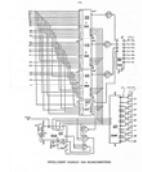
Users and Producers Interchangeable

- Best known user role – hobbyist designer
 - Steve Wozniak, Apple II Designer
- Mythology of
 - Geeks
 - Garages
 - Genius



Homebrew Computer Club

- Meeting place in mid-1970s of Bay Area hardware designers

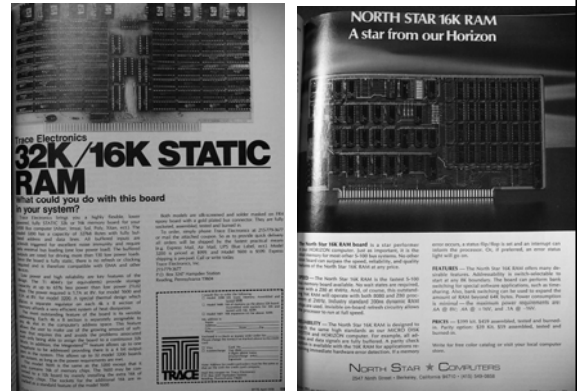


Initial Constituency

- People who
 - Knew how to solder
 - Understood electronics
 - Wanted to play with a computer
- Served by Byte magazine
 - 88,000 circulation by spring 1977

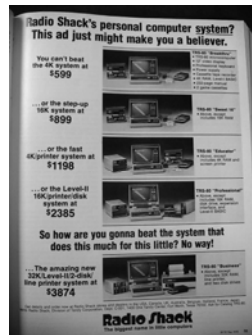


Selling to Enthusiasts



Pre-assembled Machines

- Follow by around 1977
 - Apple II
 - Radio Shack TRS 80
 - Commodore Pet
- Sell by the 100s of thousands
 - First million selling model circa 1982



Market Consolidates Rapidly

- Apple leads through 1982
- IBM PC launched 1981
 - New hardware standard
 - Clones soon follow
 - Microsoft sets OS standard with MS/DOS



End of Story?

- Some issues with journalistic narrative
 - Assumes public demand as given
 - Puts all agency in hands of producers of hardware
 - Later customers are passive recipients of packaged goodness
- But, initial focus on users is interesting
 - How to broaden
 - To more people
 - Over a longer time span

How to Manage This?

- Two ideas presented here
 1. Institutions joining producers and consumers OTHER than firms
 2. Look at individuals playing multiple roles

So to Recap

1. Explosive growth in personal computing from 1975 onward
2. Millions were sold without clear applications
3. Programming was the ONLY built in capability

3: Institutions Linking Producers and Consumers

Computer Fairs

- Develop very rapidly
 - "Computer Faire" in Bay Area is most famous
 - But hundreds of others nationally
- Boundary between visitors and exhibitors fluid in 1970s
 - Booths are basic and cheap
 - Enthusiasts on both side of the trestle table



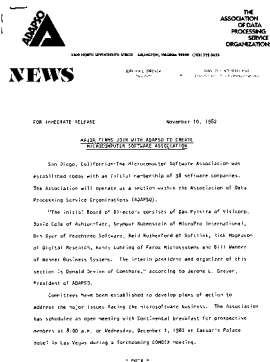
Computer Dealers

- An estimated independent 600 stores by 1976
 - Plus 5,000 Radio Shacks
- Functions
 - Sales
 - Tech support
 - Configuration
 - Training
 - Community hub
 - Some offer own software items



Trade Groups

- Trade groups established for
 - Hardware producers & Distributors
 - Microcomputer Industry Association
 - Software producers
 - Software Publishers Association
 - ADAPSO Microcomputer Software Section
 - National Computer Retailers Association



User Groups

- Distributed all over the country
- Activities include
 - Training sessions
 - Organizing exhibitions and shows
 - Creating user-contributed software libraries
 - Publishing newsletters



Modestly Famous

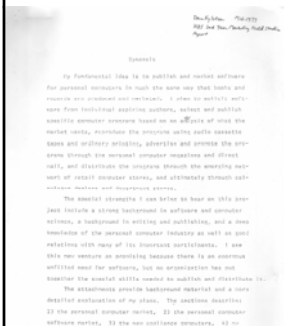
- Founded Personal Software in 1977
- In 1979 published VisiCalc
 - First spreadsheet
 - Breakout hit (circa 1 million sold)
 - Largest micro software firm through 1982
- Company implodes by 1984



Enthusiast Background

- Early user and enthusiast for personal computers
 - A founding Associate Editor of Byte
- MIT Graduate
 - Worked for MIT spinoff startup firm
 - Created system software for microprocessors
 - Returned to Harvard Business School in classic ambitious engineer mode

1977 HBS Term Paper



- "My fundamental idea is to publish and market software for personal computers in much the same way that books and records and produced and marketed.... To solicit software for individual aspiring authors... advertise... and distribute the programs through the emerging network of retail computer stores..."

Model like Book Publishing

- Believed users would supply publishable software
 - He would market, distribute, manufacture
 - Royalties of up to 50%
- VisiCalc produced on this basis



Concern with Dealers

- Founding Editor of Computer Dealer magazine
- Offered high gross margin to dealers



5: Final Thoughts

Some Tricky Issues

- Computer exceptionalism
 - Justifiable or dangerous?
 - How far can we get studying isolated firms?
- How to integrate user story into business history as other than passive consumer
- Sources for all this
 - Masses of nostalgia on the web
 - Rethink archival collecting policies?